

XI.—*Rhynchotal Notes*.—XX. By W. L. DISTANT.

## HETEROPTERA.

## Fam. Capsidæ. (Part I.)

THIS paper represents the first results of a revision of the Capsidæ contained in the British Museum, and the examination of Walker's types. The arrangement is largely that of the earlier propositions of Reuter, with some qualifications which express my own views as to the classification of this very difficult family; and these will be more fully explained in my second volume dealing with the Rhynchota of British India, which is now passing through the press.

## Division HERDONIARIA.

Allied to the *Myrmecoraria*, Reut. Cuneus always discernible; head prominent, sometimes very large, always with a distinct longitudinal impression between the eyes; anterior constricted area of the pronotum somewhat broad and long, but never broader, and generally narrower, than the posterior area; second joint of the antennæ either very strongly or slightly apically incrassated; scutellum sometimes spined.

The genus *Herdonius*, Stål, I take as typical of the Herdoniaria, and also include the genera *Zacanthus*, Dist., *Zosippus*, Dist., *Xenctus*, Dist., and *Minytus*, Dist. *Saturniomyris*, Kirk., *Systellonotus*, *Allodapus*, and probably some other described genera may also ultimately be included.

## FULGENTIUS, gen. nov.

Body subelongate. Head moderately large, distinctly longitudinally centrally incised; first joint of antennæ very little longer than head, second joint longest, somewhat thickened towards apex, third shorter than second but longer than fourth; rostrum imperfectly seen in carded specimen; pronotum moderately tumid, the lateral margins oblique, the anterior margin distinctly carinate, and transversely impressed before middle, anterior margin less than half the width of posterior margin, the last a little sinuate before scutellum, which is tumid; corium, including cuneus, about as long as abdomen; cuneus about as broad at base as long; membrane with a long basal cell; legs moderately long and slender; tibiæ somewhat longly setose.

*Fulgentius mandarinus*, sp. n.

Black; antennæ, eyes, legs, and membrane piceous; anterior margin of pronotum, first joint of antennæ (excluding apex and base of third joint) and apices of femora ochraceous; corium with a transverse fascia before middle and between clavus and lateral margin, and about basal half of cuneus, greyish white; body beneath black, imperfectly seen in carded specimen, but apparently with a greyish spot near posterior coxæ; body above very finely and obscurely pilose.

Long. 8 mm.

*Hab.* China; Namoa Islands (*J. J. Walker*, Brit. Mus.).

## NICHOMACHUS, gen. nov.

Moderately elongate. Head broad, including eyes much wider than anterior margin of pronotum, narrowed and moderately deflexed in front of the prominent and exserted eyes, lateral margin sinuate, disk strongly longitudinally sulcate; antennæ with the first joint short, shorter than antocular portion of head, second and third joints longest and subequal in length, fourth shorter but longer than first; rostrum reaching the posterior coxæ; pronotum strongly constricted at about one third from anterior margin, forming a distinct narrow anterior lobe, posterior lobe tumid, about twice as long and much broader than the anterior lobe; scutellum very strongly conically gibbous and longly though sparingly pilose; corium (excluding cuneus) a little shorter than the abdomen, its lateral margins sinuate, broadest at the area of the interior angle, cuneus longer than broad; membrane thickly and finely reticulate, with a single, narrow, short, lateral cell.

Allied to *Systellonotus*, from which it differs by the broader head, larger and exserted eyes, conically raised scutellum, &c. But for the longitudinally impressed head might be located in the *Pilophoraria*.

*Nichomachus Sloggetti*, sp. n.

Cinnamon-brown; eyes, scutellum, base and apical margin of corium, cuneus, disks of meso- and metasterna, and abdomen beneath black; an oblique transverse fascia in basal black area of corium, a transverse fascia to clavus beyond middle, and a basal fascia to cuneus white; antennæ (excluding basal joint), posterior lobe of pronotum, and apices of femora infuscated; membrane shining brownish ochraceous; two transverse subbasal fasciæ to abdomen beneath pale

luteous; head and pronotum finely granulate; scutellum smooth, shining, sparingly longly pilose; clavus, corium, and cuneus finely and thickly punctate, shortly, obscurely, rigidly pilose.

Long.  $5\frac{1}{2}$  mm.

*Hab.* Cape Colony; Deelfontein (*Col. Sloggett*, Brit. Mus.).

## Division MIRARIA.

### Genus EIONEUS.

*Eioneus*, Dist. Biol. Centr.-Amer., Rhynch. i. p. 416 (1893).

#### *Eioneus lineatus.*

*Miris lineata*, Butl. Proc. Zool. Soc. 1877, p. 89.

*Hab.* Galapagos Islands.

### Genus MIRIS.

#### *Miris ruficeps*, sp. n.

Very pale ochraceous; first joint of antennæ and posterior femora and tibiæ thickly speckled with sanguineous; lateral margins of pronotum and a central line traversing pronotum and scutellum pale greyish; first and second joints of antennæ strongly pilose, first joint moderately incrassate, almost as long as head and pronotum together, second joint about twice as long as first; tibiæ thickly and rather longly pilose.

Long. 9 mm.

*Hab.* Cape Colony: Grahamstown (Brit. Mus.); British East Africa (*Gregory*, Brit. Mus.).

### Genus CREONTIADES.\*

*Creontiades*, Dist. Biol. Centr.-Amer., Rhynch. ii p. 237 (1883).

*Kangra*, Kirk. Tr. Ent. Soc. 1902, p. 257.

#### *Creontiades stramineus.*

*Capsus stramineus*, Walk. Cat. Het. vi. p. 120 (1873).

*Kangra Dudgeoni*, Kirk. Tr. Ent. Soc. 1902, p. 257.

#### *Creontiades sinicus.*

*Capsus sinicus*, Walk. Cat. Het. vi. p. 120 (1873).

#### *Creontiades angulifer.*

*Capsus angulifer*, Walk. Cat. Het. vi. p. 126 (1873).

*Creontiades flicornis.**Capsus flicornis*, Walk. Cat. Het. vi. p. 96. n. 161 (1873).*Megacælum flicornis*, Uhler, Check-list N.-Am. Hem. p. 18.

Head centrally longitudinally sulcated.

*Creontiades incertus.**Capsus incertus*, Walk. Cat. Het. vi. p. 111. n. 250 (1873).*Resthenia incertus*, Atkins. Cat. Capsidæ, p. 58 (1890).

## Genus PANTILIUS.

*Pantilius australis.**Lopus australis*, Walk. Cat. Het. vi. p. 57 (1873).

Head ochraceous, eyes fuscous; first joint of antennæ testaceous, second ochraceous, with its apical third black; pronotum pale greenish, its anterior area ochraceous, lateral margins and posterior angles purplish red; scutellum pale greenish, its basal margin and a central line ochraceous; clavus and corium mostly pale purplish red, apical area of clavus and lateral margins of corium pale greenish; cuneus ochraceous, its margins purplish red; membrane brownish ochraceous, the veins purplish red; body beneath and legs ochraceous; tibiæ pale greenish; apices of posterior femora, bases and apices of posterior tibiæ and the tarsi purplish red, apices of tarsi piccous; scutellum finely transversely striate, excepting on the basal margin and central linear fascia; corium a little widened from base and attenuated posteriorly; bases of apical margin of corium carinate.

Long. 10 mm.

*Hab.* New South Wales: Tasmania; Hobart (*J. J. Walker*, Brit. Mus.).

## Genus ZANESSA.

*Zanessa pictulifer.**Capsus pictulifer*, Walk. Cat. Het. vi. p. 126 (1873).

## Genus KOSMIOMIRIS.

*Kosmiomiris lucidus.**Capsus lucidus*, Walk. Cat. Het. vi. p. 124 (1873).*Kosmiomiris rubroornatus*, Kirk. Tr. Ent. Soc. 1902, p. 253.

*Note.*—In this division *Miraria* and near the genus *Pantilius* I place *Pæas Reuteri*, Dist. (Biol. Centr.-Am., Rhyn. i. p. 428, tab. xxxvii. fig. 5),—head distinctly sulcated; and for the same reason *Jacchinus tabascoensis*, Dist. (*loc. cit.* p. 430, tab. xxxvii. fig. 10).

### Division CYLAPARIA.

*Valdasaria*, Dist. Biol. Centr.-Amer., Rhynch. i. p. 242 (1883).

*Monalonionaria*, Reut. Ann. Soc. Ent. Fr. lxi. p. 398 (1892).

*Euceroconaria*, Kirk. J. Bomb. Nat. Hist. Soc. 1902, p. 294.

*Cylaparia*, Kirk. Wien. ent. Zeit. xxii. p. 13 (1903).

The name of this division was originally founded on that of the neotropical genus *Valdasus*, Stål; this having since been proved to be but a synonym of *Cylapus*, Say, it is necessary to alter the divisional name as above.

### ARGENIS, gen. nov.

Head broad, not horizontally produced in front of eyes, which touch but exceed the width of the anterior margin of the pronotum, distinctly longitudinally centrally impressed, or very finely sulcate; antennæ with the first joint longer than head, but shorter than pronotum, second joint almost twice as long as first, third joint about one third shorter than second; eyes large, globose; pronotum coarsely punctate, transversely constricted before middle, posterior lobe tumid, centrally very obscurely carinate, posterior angles subprominent and a little tuberculous; scutellum triangular, the apex somewhat acute; corium long, cuneus passing apex of abdomen; membrane somewhat small; body beneath obscurely seen, owing to typical specimen being carded.

#### *Argenis incisuratus*.

*Capsus incisuratus*, Walk. Cat. Het. vi. p. 121. n. 282 (1873).

*Hab.* Ceylon.

Walker's very inadequate description of this species contains the erroneous statement:—"Prothorax with no transverse furrow."

### Genus SYSINAS.

#### *Sysinas tibialis*.

*Capsus tibialis*, Walk. Cat. Het. vi. p. 109. n. 245 (1873).

*Resthenia tibialis*, Atkins. Cat. Capsidæ, p. 61 (1890).

## Genus HELOPELTIS.

*Helopeltis clavifer*.*Dulichius* ? *clavifer*, Walk. Cat. Het. iv. p. 170. n. 2 (1871).*Helopeltis braconiformis*, Walk. loc. cit. vi. p. 165 (1873); Waterh. Tr. Ent. Soc. 1886, p. 459, pl. xi. fig. 4.

## Division — ?

## Genus DISPHINCTUS.

*Disphinctus fasciatus*.*Capsus fasciatus*, Walk. Cat. Het. vi. p. 122. n. 284 (1873).*Disphinctus unadyomene*, Kirk. Trans. Ent. Soc. 1902, p. 264.*Disphinctus politus*.*Monalonion politum*, Walk. Cat. Het. vi. p. 163. n. 7 (1873).*Disphinctus formosus*, Kirk. Journ. Bomb. Nat. Hist. Soc. xiv. p. 295, pl. A. fig. 10 (1902).

## Genus HYALOPEPLUS.

*Hyalopeplus vitripennis*.*Capsus vitripennis*, Stål, Freg. Eug. Resa, Ins. p. 255 (1859).*Hyalopeplus vitripennis*, Stål, Öfv. Vet.-Ak. Förh. 1870, p. 670.*Capsus lineifer*, Walk. Cat. Het. vi. p. 122. n. 285 (1873).*Hyalopeplus lineifer*, Kirk. Tr. Ent. Soc. 1902, p. 18.

## Division LOPARIA.

## Genus RESTHENIA.

*Resthenia incisus*.*Capsus incisus*, Walk. Cat. Het. vi. p. 92. n. 151 (1873).*Resthenia jamaicensis*.*Capsus jamaicensis*, Walk. Cat. Het. vi. p. 101. n. 189 (1873).*Heterocoris jamaicensis*, Atkins. Cat. Capsidæ, p. 42 (1890).

## Genus LOPIDEA.

*Lopidea floridana*.*Capsus floridanus*, Walk. Cat. Het. vi. p. 97. n. 163 (1873).*Lopidea marginata*, Uhler, Proc. Calif. Ac. iv. p. 249 (1894).

Walker's description is faulty. The first joint of the antennæ is not "red," as described, but inclining to fuscous brown; the ochraceous lateral margin to the corium is also omitted in the diagnosis.



## Genus LOMATOPLEURA.

*Lomatopleura coccineus*.*Capsus coccineus*, Walk. Cat. Het. vi. p. 93. n. 152 (1873).*Lomatopleura hesperus*, Kirk. Trans. Ent. Soc. 1902, p. 252, pl. v. fig. 1.? *Lomatopleura cesar*, Reut. (Efv. Vet.-Ak. Förh. 1875, no. 9, p. 67.

## Division PHYTOCORARIA.

## CAPELLANUS, gen. nov.

Elongate; head subtriangular, moderately produced; antennæ with the basal joint short, about as long as head, second joint three times as long as first, third shorter than second; pronotum short, truncate at base; scutellum subtriangular; corium long and with cuneus about reaching apex of abdomen; posterior femora incrassated; cuneus longer than broad.

Allied to *Phytocoris*.

*Capellanus sparsus*.*Lygus sparsus*, Dist. Biol. Centr.-Amer., Rhyn. i. p. 434, tab. xxxvii. fig. 19 (1893).

*Hab.* Guatemala (type, Brit. Mus.).

## Genus PARACALOCORIS.

*Paracalocoris sobrius*.*Capsus sobrius*, Walk. Cat. Het. vi. p. 115. n. 264 (1873).

Very pale ochraceous; two large obconical spots at the base of pronotum and the corium purplish brown; lateral margins of pronotum and corium, two small central spots on anterior disk of pronotum, and a rounded spot on corium near inner base of cuneus black; membrane pale fuliginous, cellular marginal veins purplish red; first joint of antennæ purplish brown, second and third joints black, base of third luteous.

*Paracalocoris leprosus*.*Capsus leprosus*, Walk. Cat. Het. vi. p. 111. n. 253 (1873).*Paracalocoris sericeus*.*Capsus sericeus*, Walk. Cat. Het. vi. p. 117. n. 272 (1873).

Pronotum anteriorly thickly cinereously tomentose, containing two central piceous spots.

*Paracalocoris capensis*, sp. n.

Somewhat pale ochraceous; corium pale castaneous, its lateral margin ochraceous; cuneus ochraceous, its apex and basal and inner margins castaneous; membrane subhyaline, slightly tinged with pale fuliginous; body beneath, rostrum, and legs pale ochraceous; eyes, lateral margins of pronotal collar, two small rounded discal spots to pronotum, a lateral spot to mesosternum, and the apex of rostrum black; basal joint of antennæ purplish red, second joint ochraceous, its base black and its apical area purplish red (remaining joints mutilated); body above strongly greyish pilose; basal joint of antennæ finely thickly pilose.

Long. 7 mm.

*Hab.* Cape of Good Hope (Brit. Mus.).

## Genus NEUROCOLPUS.

*Neurocolpus nubilus*.

*Capsus nubilus*, Say, Hem. New Harm. Ind. p. 22. n. 10 (1831).

*Capsus hirsutulus*, Walk. Cat. Het. vi. p. 95. n. 158 (1873).

*Neurocolpus nubilus*, Kirk. (part.) Tr. Ent. Soc. 1902, p. 252, nec *mexicanus*, Dist.

## Genus CALOCORIS.

*Calocoris norvegicus*.

*Cimex norvegicus*, Gmel. Syst. Nat. iv. p. 2176 (1788).

*Capsus contiguus*, Walk. Cat. Het. vi. p. 95. n. 159 (1873).

*Capsus stramineus*, Walk. Cat. Het. vi. p. 96. n. 160 (1873).

*Calocoris laticinctus*.

*Capsus laticinctus*, Walk. Cat. Het. vi. p. 127. n. 308 (1873).

*Capsus ustulatus*, Walk. *loc. cit.* p. 128. n. 309.

In the Phytocoraria I now place the Neotropical genus *Calocorisca*.

## Division CAPSARIA.

## Genus LYGUS.

*Lygus australis*, nom. n.

*Capsus innotatus*, Walk. Cat. Het. vi. p. 116. n. 269 (1873), nom. præocc. Reuter (1871).

*Lygus suffusus*.

*Capsus suffusus*, Walk. Cat. Het. vi. p. 117. n. 270 (1873).



*Lygus æthiops*, nom. n.

*Capsus limbatus*, Walk. Cat. Het. vi. p. 117. n. 271 (1873), nom. præoce. Fallén (1829).

*Lygus pallidulus*.

*Capsus pallidulus*, Walk. Cat. Het. vi. p. 116. n. 267 (1873).

A single specimen in very bad condition constitutes the type of this species.

*Lygus illepidus*.

*Capsus illepidus*, Walk. Cat. Het. vi. p. 115. n. 265 (1873).

*Lygus?* *conspersus*.

*Capsus conspersus*, Walk. Cat. Het. vi. p. 116. n. 268 (1873).

The type is in bad condition and without antennæ.

*Lygus maoricus*.

*Leptomerocoris maoricus*, Walk. Cat. Het. vi. p. 146. n. 110 (1873).

Anterior area of pronotum pale ochraceous, sometimes with two dark spots.

Genus PÆCILOSCYTUS.

*Pæciloscytus solitus*.

*Capsus solitus*, Walk. Cat. Het. vi. p. 116. n. 266 (1873).

Type in very bad condition.

Genus CAMPTOBROCHIS.

*Camptobrochis strigulatus*.

*Capsus strigulatus*, Walk. Cat. Het. vi. p. 94. n. 155 (1873).

Genus PÆCILOCAPSUS.

*Pæcilocapsus marginatus*.

*Capsus marginatus*, Walk. Cat. Het. vi. p. 96. n. 162 (1873).

*Pæcilocapsus limbatellus*.

*Capsus limbatellus*, Walk. Cat. Het. vi. p. 93. n. 153 (1873).

*Pæcilocapsus* (*Metriorrhynchus*) *affinis*, Reut. Öfv. Vet.-Ak. Förh. 1875, no. 9, p. 74.

## Genus DERÆOCORIS.

*Deræocoris patulus.**Capsus patulus*, Walk. Cat. Het. vi. p. 120. n. 279 (1873).

## Genus LIOCORIS.

*Liocoris partitus.**Capsus partitus*, Walk. Cat. Het. vi. p. 119. n. 276 (1873).

## Genus BOTHRIOMIRIS.

*Bothriomiris simulans.**Capsus simulans*, Walk. Cat. Het. vi. p. 125. n. 295 (1873).*Bothriomiris marmoratus*, Kirk. Tr. Ent. Soc. 1902, p. 271, pl. v. fig. 9, pl. vi. fig. 16.

## Division BRYOCORARIA.

## Genus PHYSETONOTUS.

In the 'Biologia Centrali-Americana' (Rhynchota, vol. i. p. 285) I followed Stål in placing his *Eccritotarsus pallidirostris* in the genus he had himself founded. I, however, placed it in a distinct section of the genus—"b. *Body ovate. Pronotum prominently gibbous.*" Subsequently Dr. Reuter (Ann. Soc. Ent. Fr. lxi. p. 394, 1892) has proposed the genus *Physetonotus* for the reception of these species, making *P. atratus*, Dist. (*Eccritotarsus*), the type. The following species must also be included:—

*Eccritotarsus pallidirostris*, Stål; *E. incurvus*, Dist.; *E. gibbus*, Dist.; *E. porrectus*, Dist.; *E. impavidus*, Dist.; *E. perobscurus*, Dist.; *E. tenebrosus*, Dist.; *E. nocturnus*, Dist.; *E. marginatus*, Dist.; and *E. procurvens*, Dist.

## ARASPUS, gen. nov.

Ovate, posteriorly widened. Head deflected from in front of eyes, which are large, projecting beyond but not touching anterior margin of pronotum. Antennæ with the first joint slightly longer than head, a little thickened towards apex; second joint considerably longer than first, very prominently incrassate and pilose on its apical half; third joint slender; remainder mutilated. Rostrum apparently reaching the intermediate coxæ (the type a carded specimen); pronotum with the basal margin rather more than twice the width of anterior margin, basal margin truncate, becoming oblique towards posterior angles; scutellum tumid, basally foveate; corium

convexly rounded posteriorly; cuneus a little longer than broad; legs of moderate length, posterior femora thickened.

*Araspus partilus*.

*Lopus partilus*, Walk. Cat. Het. vi. p. 56. n. 27 (1873).

*Hab.* New Guinea (Brit. Mus.).

MERTILA, gen. nov.

Elongately oval. Head rather long and depressed in front of insertion of antennæ, of which the first joint is shorter than head and attenuated at base; second joint much longer than first, it and the remaining joints pilose. Rostrum not quite reaching the intermediate coxæ. Pronotum with an anterior collar, which has its anterior and posterior margins carinate; subimpressed or distinctly constricted before middle, the depression including two transverse callosities; posterior area a little tumid; posterior margin about twice the breadth of anterior margin, sometimes as long as broad. Scutellum small, subtriangular, callous, foveate at base; hemelytra much longer than abdomen; membrane with a single triangular cell; legs moderately short and slender.

*Mertila malayensis*, sp. n.

Orange-red; apex of first and the whole of the second joint of antennæ, eyes, apex of rostrum, corium (excluding basal area), cuneus, membrane, extreme apices of femora, tibiæ, tarsi, and sometimes abdomen beneath, indigo-black; head with a distinct central ridge and a broad foveation on inner side of eyes; pronotum a little hollowed between the anterior callosities; upper surface very finely and obscurely pilose; tibiæ finely setose.

Long. 5-6 mm.

*Hab.* Singapore (*H. N. Ridley*, Brit. Mus.).

*Mertila ternatensis*, sp. n.

In colour resembling *C. malayensis*, but with the first and second joints of the antennæ entirely indigo-black and the legs entirely orange-red; body much more elongate; pronotum nearly as long as broad, very distinctly constricted before middle, the lateral margins of the anterior lobe convexly produced; corium distinctly coarsely punctate, the suture behind claval apex divided and forming an oblong

foveation; apical half of membrane bronzy brown; abdomen beneath orange-red.

Long. 6 mm.

*Hab.* Ternate (*J. J. Walker*, Brit. Mus.).

### Division — ?

#### SABELLICUS, gen. nov.

Resembling *Deraeocoris*, from which it differs principally by the structure of the antennæ. Head elongately depressed in front of insertion of antennæ, of which the first joint is as long or a little longer than the head, prominently incrassated, and sometimes compressed from immediately beyond base, somewhat longly marginally pilose, with a distinct spur on outer side of apex; second joint much longer than first, slender at base and regularly and moderately incrassated towards apex; remaining joints mutilated in type. Eyes large, almost touching anterior margin of pronotum. Pronotum with the basal margin about twice as broad as anterior margin, with a distinct pronotal collar, and with the posterior angles sub-tuberculous; rostrum reaching the intermediate coxæ; cuneus slightly longer than broad, the fracture profound; anterior legs robust, the tibiæ moderately incrassate; intermediate and posterior legs mutilated in type.

#### *Sabellicus apicifer*.

*Capsus apicifer*, Walk. Cat. Het. vi. p. 124. n. 293 (1873).

*Hab.* Celebes: Makian (Brit. Mus.).

Type in bad condition.

#### *Sabellicus sordidus*.

*Lopus sordidus*, Walk. Cat. Het. vi. p. 57. n. 29 (1873).

*Leptomerocoris antennatus*, Walk. loc. cit. p. 145. n. 109.

## XII.—A Contribution to the Characteristic of Corals of the Group *Rugosa*. By Prof. N. YAKOVLEFF.

WHILE engaged in investigating the Upper Palæozoic coral *Lophophyllum proliferum*\*, regarding which there have lately

\* N. Yakovleff, "Fauna of the upper Portion of the Palæozoic Deposits of the Donetz Basin," Transactions of the Geological Committee, new series, no. 12 (1903).